

**CLAIMS**

I (WE) CLAIM:

1. A wireless communication system operative for transmission of packet data and low delay data on a plurality of transmission channels, the system comprising:

4 a first set of channels within the plurality of transmission channels, the  
6 first set of channels being assigned to packet data transmissions  
8 and packet data being transmitted in frames;  
10 a second set of channels within the plurality of transmission channels,  
12 the second set of channels being assigned to low delay data  
transmissions; and  
a signaling channel within the plurality of transmission channels, the  
signaling channel being assigned to message transmissions,  
wherein each message identifies a packet data target recipient.

2. The wireless communication system of claim 1, wherein a first message is  
2 transmitted on the signaling channel concurrently with an associated first  
4 packet data frame, and wherein the first message identifies a first packet data  
target recipient associated with the first packet data frame.

3. The wireless communication system of claim 1, wherein the first message  
2 identifies a subset of the first set of channels assigned to transmission of the first  
4 packet data.

4. The wireless communication system of claim 1, wherein the first message  
2 identifies a coding scheme used for transmission of the first packet data.

5. A wireless apparatus operative within the system of claim 1, the wireless  
2 apparatus operative to receive packet data via at least one of the first set of  
channels and to receive messages via the signaling channel, the wireless  
4 apparatus comprising:

a buffer operative to store packet data received via the at least one of the  
6 first set of channels;

a processor coupled to the buffer, the processor operative to determine  
8 target recipient information from the received messages; and

a decoder coupled to the processor, the decoder operative to decode data  
10 packets received if the wireless apparatus is a target recipient and  
ignore data packets if the wireless apparatus is not the target  
12 recipient.

6. The wireless apparatus of claim 5, wherein the target recipient  
2 information may identify multiple recipients.

7. The wireless apparatus of claim 6, further comprising:

2 a memory storage device coupled to the processor, the memory storage  
device storing computer readable instructions operative to control  
4 the decoder.

8. In a wireless communication system, the system supporting packet data  
2 transmissions and low delay data transmissions over a plurality of transmission  
channels, a method comprising:

4 transmitting packet data via a set of packet data channels; and  
6 transmitting control information associated with the packet data via a  
8 signaling channel, wherein the signaling channel is separate from  
the set of packet data channels, and wherein the control  
information identifies a target recipient of associated packet data.

9. The method of claim 8, wherein the control information further identifies  
2 a coding scheme for the packet data.

10. The method of claim 9, further comprising:  
2 receiving data requests from a plurality of mobile units; and  
determining a transmission schedule according to the data requests.

11. The method of claim 10,  
2 assigning a priority level to each of the plurality of mobile units; and  
determining a traffic schedule among the plurality of mobile units based  
4 on priority level.

12. The method of claim 11, wherein a high priority is given to a mobile unit  
2 experiencing less interference than other of the plurality of mobile units.

13. A wireless apparatus operative to receive packet data via at least one of  
2 the first set of channels, the wireless apparatus comprising:  
a processor operative to receive messages via a signaling channel and to  
determine target recipient information and coding information  
from a received messages; and  
6 a data rate determination unit operative to calculate a data rate in  
accordance with the target recipient information and the coding  
information.  
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14. The apparatus of claim 13, wherein the apparatus is operative within a  
2 wireless communications system supporting high rate packet data  
transmissions and low delay data transmissions.

15. The apparatus of claim 13, further comprising:  
2 a buffer coupled to the processor, the buffer operative to store packet  
data received via the at least one of the first set of channels;  
4 a decoder coupled to the processor, the decoder operative to decode data  
packets received if the wireless apparatus is a target recipient and  
6 ignore data packets if the wireless apparatus is not the target  
recipient.

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16. The apparatus of claim 13, wherein the target recipient information  
2 identifies multiple target recipients.
  
17. The apparatus of claim 13, wherein the coding information is  
2 predetermined by a transmitter and is used to encode the packet data, and  
wherein the apparatus further comprises:  
4 a decoder coupled to the processor, the decoder responsive to the coding  
information to decode received packet data.

